

FROSTBURG STATE UNIVERSITY
Health Education Lesson Plan

General Information

Instructor(s): Zachary Douglas	Grade Level: 7 th Grade
Unit/Theme: Nutrition	Time Allotment: 35-40 minutes
Lesson Focus: Nutrients	
Equipment/Instructional Materials: Smart board or projector with computer hook-up	
Resources for Slides: <ul style="list-style-type: none"> • http://www.monzy.com/scurvy/ • http://www.livestrong.com/article/448536-symptoms-of-a-carb-deficiency-in-diets/#ixzz1n2dUeWMQ • http://hscweb3.hsc.usf.edu/health/now/?cat=13 • http://www.nlm.nih.gov/medlineplus/ency/article/000982.htm • http://kirstyne.wordpress.com/2007/09/29/if-youve-never-heard-of-cholera-be-thankful-that-you-have-clean-water/ • http://www.2medusa.com/2009/04/male-anorexia-bryan-bixler-is-dying.html Resources: <ul style="list-style-type: none"> • http://www.livestrong.com • http://www.livestrong.com/article/509245-visual-aids-for-portion-sizes/ • Friedman, David P. "Chapter 7: Nutrition for Life." <i>Lifetime Health. Teacher Ed.</i> [S.l.]: Holt, Rinehart, Winston, 2009. 154-66. Print. 	

Standards, Outcomes, and Assessments

Learning Domain	Outcome	MSC Health Education Content Area, Standard, Indicator, and Sub-indicator	AAHE Standard and Indicator
Cognitive	Students will be able to identify the six major nutrients (carbohydrates, water, fats, proteins, vitamins, minerals) and their respective functions in the body in order to earn a "satisfactory" on the written assessment during the lesson.	6.0 Nutrition and Fitness: Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle. D.1. Explain the role of nutrients. a. Describe the function of the six major nutrients.	N/A
	Assessment: The students will complete the written assessment on nutrients and how it influence health and body. See Attachment A.		
Affective	Students will be able to compare their nutrient intake to the daily-recommended value and create a plan to improve and/or maintain a healthy diet to earn an "outstanding" rating on the written assessment at the end of the lesson.	6.0 Nutrition and Fitness: Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle. D.1. Explain the role of nutrients. c. Describe how nutrients intake can contribute to being overweight or obese.	Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health. 5.6: Choose healthy alternatives over unhealthy alternatives when making a decision.

Assessment: The students will fill the personal diet reflection worksheet about the lesson on nutrients and health at the end of class. See attachment C.

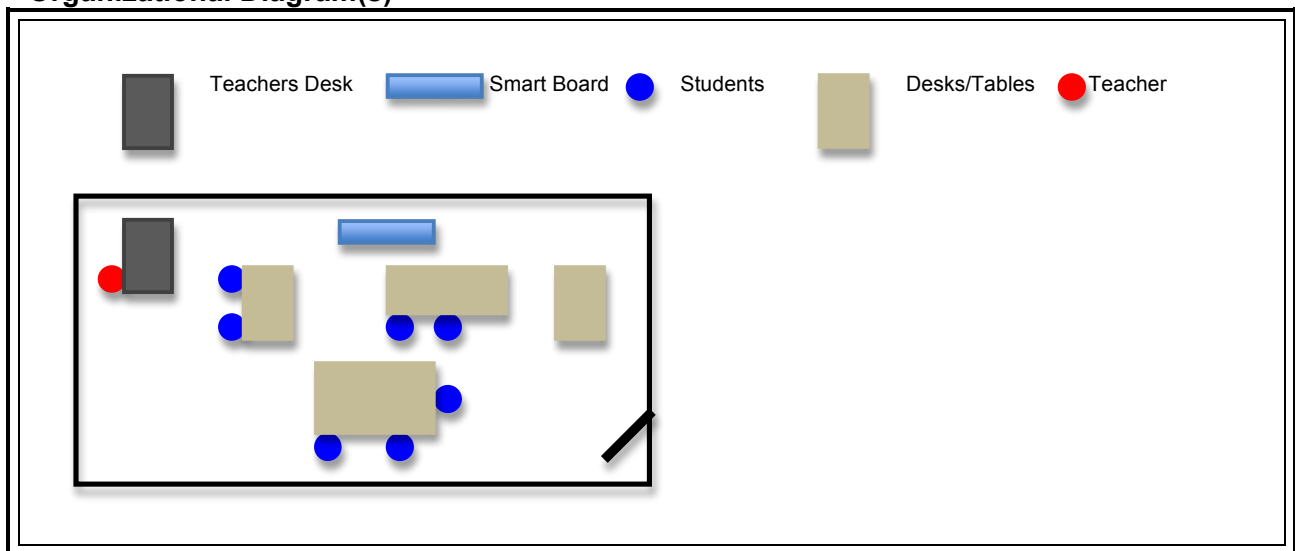
Lesson Narrative

Name of Activity	Time Allotment	Detailed Description of Lesson	Key Features
Warm-up Activity	5 minutes	<ul style="list-style-type: none"> <i>Instructor will have the tile slide of the power point up on the board.</i> The students will come into class and sit in their assigned seats (See Organization Diagram section: seating chart). Once the class is seated the teacher will introduce the lesson on nutrients as the topic for the day. The instructor will then switch slides to the introduction of the warm-up matching activity (Slide 2). And read off the slide the 6 essential nutrients (Carbohydrates, Proteins, Fats, Water, Vitamins, Minerals). The teacher will explain that the warm-up activity is a matching “game” that the students will each individually participate in. “What essential nutrient absence has caused this disease?’ is the main question you want to answer for each of the slides. Once I switch the slides read the name and the brief description of each disease then keep your answer in your head until I ask for you to raise your hand. Each slide gets progressively more challenge so try and use your context and root word cues to help you solve the question.” After switching the slide to the first warm-up matching exercise (Slide 3) the teacher will then wait about 20 seconds before they ask: “If you think that’s the nutrients deficiency is carbohydrates then raise your hand” <i>This will repeat for each of the essential nutrients.</i> After all the nutrients have been named, weather students raise their hand for each nutrient or not, the teacher will then reveal the correct nutrient that is missing. The process will then repeat until the last nutrient deficiency matching activity is complete and the introduction slide to the lesson is displayed (Titled: nutrient handout). <p>Differentiation: If the class is larger or smaller the instructor can slip the class in groups, partners, or a</p>	<p>Nutrient Deficiency Matching:</p> <p>Visual/ Auditory</p>

		<p>class selector can be elected to write down what they think the answer is for the warm-up matching activity. Also, if the teacher appoints partners or groups a peer check can be used at the end.</p> <p>Transition: <i>While handing out the nutrient information sheet</i> (See attachment D: Nutrition and Nutrients). “Today we will be learning about the 6 essential nutrients that we looked at in the warm-up and how they effect your body. On this handout there will be blanks that correspond to the information on the power point. It is important to fill in each blank because the information will be needed later for your assessment. Also, if you miss any of the answers or are unsure of what the answer is wait until the end of the presentation to ask because the answer may be revealed later in the power point. Get out your pencils and follow along as a go through the slides.”</p>	
Introduction	3 minutes	<ul style="list-style-type: none"> • After the teacher has handed out the worksheet they will begin the nutrient lesson (Slide titled: Nutrition and Nutrients). • The teacher will then review the basics of nutrition (definition of nutrition and nutrients and the types of nutrients) by reading them off of the power point. <p>Differentiation: If students have trouble seeing or reading the slides the teacher can print off copies of the slides to help with them following along.</p> <p>Transition: “In the world of nutrition there are two main types of nutrients: macronutrients and micronutrients. We are first going to start off with macronutrients.” <i>Switch to slide titled: Macronutrients.</i></p>	<p>Nutrition and Nutrient Hand-out</p> <p>Visual/Auditory</p>
Nutrients Power Point	25 minutes	<ul style="list-style-type: none"> • The teacher will then read and the slides on Macro and Micro nutrients until reaching the slide that says (Conclusion). • The teacher may also incorporate questions, examples, images, etc to help better relate the information students. <p>Differentiation: If the student can not write because of a limitation, the notes can be provided along with the Attachment D Answer Key</p> <p>Transition: “The nutrient lesson is a very content heavy section so if you have any questions still please feel free to ask them now.” <i>Allow for students to ask question of missed information and confusion about the material.</i></p>	<p>Power point</p> <p>Visual/Auditory</p>

Closure	5 minutes	<ul style="list-style-type: none"> The teacher will then read the slide (Nutrient Main Ideas) to the class. The teacher will pass out the affective assessment (See attachment C) and will say "This is an individual and personal assignment. Please do not talk or else you will lose the full points for the assignment." Once the students are finished they will raise their hand and the teacher will collect it until everyone is finished. Students can pack up quietly while others finish but it should be quiet for the people still working. Once all assessments are completed the teacher will collect all of them and say "Thank you for being so patient with the lesson today, I know it was very content heavy but I appreciate your cooperation and focus. Have a good day." 	Affective Assessment Visual/Auditory
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Organizational Diagram(s)



Assessments:

Attachment A:

Name: _____

Date: _____

Nutrients Review

Directions: Read each question and write your responses clearly in the space provided. This assessment will determine how well the concepts of nutrients were learned.

1. **Define** the term *nutrient*.

2. **State** two functions of nutrients in your body.

3. _____ is the class of nutrient that is made up of chains of amino acids.

4. Carbohydrates are made up of _____ and _____ sugars.

5. **List** the six classes of nutrients:



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

6. _____, _____, and _____ are all classified as MACRO nutrients.

7. _____, and _____ are classified as MICRO nutrients.

8. Unsaturated and Saturated are types of _____.

Food Choice A:

Nutrition Facts			
Serving Size 1 Bar (62g)			
Servings Per Container 1			
Amount Per Serving			
Calories	170	Calories from Fat	80
% Daily Value*			
Total Fat	9g		14%
Saturated Fat	4g		20%
Trans Fat	0g		
Cholesterol	10mg		3%
Sodium	55mg		2%
Total Carbohydrate	22g		7%
Dietary Fiber	less than 1g		3%
Sugars	18g		
Protein	2g		3%
Vitamin A	2%	Vitamin C	6%
Calcium	4%	Iron	0%

Food Choice B:

Nutrition Facts			
Serving Size about 25 pieces (28 g)			
Servings Per Container about 6			
Amount Per Serving			
Calories	180	Calories from Fat	160
% Daily Value*			
Total Fat	18g		27%
Saturated Fat	1.5g		6%
Sodium	0mg		0%
Total Carbohydrate	4g		1%
Dietary Fiber	2g		7%
Sugars	1g		
Protein	4g		
Calcium	6%		Iron 6%
Not a significant source of Cholesterol, Vitamin A and Vitamin C.			
* Percent Daily Values are based on a 2,000 calorie diet.			

Criteria:
Satisfactory: Com answer all questions, explanation that justifies the answer and at least 2 reasons that describe how healthy lifestyle choices affect health.

Developing: Does not answer all questions completely or correctly.

Needs Improvement: Did not answer any questions correctly

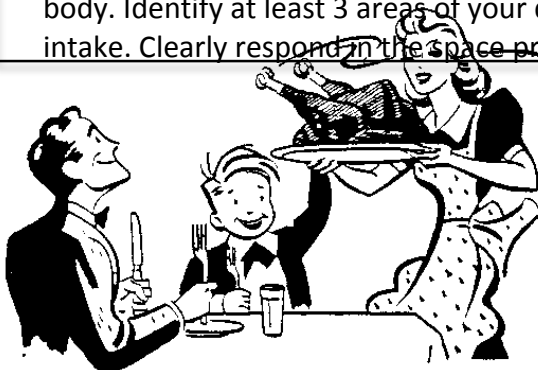
Attachment C:

Name: _____

Date: _____

Practicing Wellness

Directions: Think about what you learned today about the 6 nutrients and how they affect your body. Identify at least 3 areas of your diet that you can improve or maintain your nutrient intake. Clearly respond in the space provided.



From what you learned today, choose which "Food Choice" either A or B is the healthier option and explain why you choose it.

How much you are supposed to consume daily.	Example of a source of the nutrient.	How can you improve or maintain this nutrient intake.
Provide at least 2 reasons how a person's diet affects his or her quality of life? Carbohydrates: <i>Relative portion:</i> Tennis ball	correct and the respective area of improvement/maintenance of personal diet are complete and reflect how healthy lifestyle choice affects health. Needs Improvement: The assessment is either partly or not complete.	
Proteins: <i>Relative portion:</i> Deck of Cards		
Fats: <i>Relative portion:</i> Tip of your thumb per meal		
Water: <i>Relative portion:</i> 8 glasses/ 8 fists		
Minerals: <i>Relative portion:</i> Vegetables/ Fruits- Baseball		
Vitamins: <i>Relative portion:</i> Vegetables/ Fruits- Baseball		

Attachment D:

Name: _____ Date: _____

Nutrition and Nutrients

Directions: Students will follow along with the nutrients power point and fill the corresponding missing blanks to help learn the information needed for the assessment at the end of class and for future reference.

6. **Define** the term *nutrient*.

7. **State** two functions of nutrients in your body.

8. _____ is the class of nutrient that is made up of chains of amino acids.

9. Carbohydrates are made up of _____ and _____ sugars.

10. **List** the six classes of nutrients:

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

6. _____, _____, _____, and _____ are all classified as MACRO nutrients.

7. _____, and _____ are classified as MICRO nutrients.

8. Unsaturated and Saturated are types of _____.

9. Food energy is measured in units called _____.

10. _____ are required in large quantities by the body and their main function is the release of energy

11. Carbohydrates give off about _____ calories per gram consumed.

12. Proteins give off about _____ calories per gram consumed.
13. Fats/Lipids give off about _____ calories per gram consumed.
14. _____ is a single unit that provides energy for your cells in a single unit
15. _____ are considered to be “good” fats; where as, _____ are considered to be “bad” fats.
16. _____, _____, _____ are the main minerals needed to carry our processes in your body.
17. Proteins portion size is about the size of a _____.

Attachment D: Answer Key

Name: _____ **KEY** _____ Date: _____

Nutrition and Nutrients

Directions: Students will follow along with the nutrients power point and fill the corresponding missing blanks to help learn the information needed for the assessment at the end of class and for future reference.

- 1. Define** the term *nutrient*.
are substances in food that provide energy or help form body tissue that are necessary for life and growth.
- 2. State** two functions of nutrients in your body. Provide energy, healthy growth of the body, aid body function
- 3. Proteins** is the class of nutrient that is made up of chains of amino acids.
- Carbohydrates are made up of simple and complex sugars.
- List** the six classes of nutrients: Water, carbs, minerals, vitamins, proteins, fats.
6. _____ water _____, _____ carbohydrate _____, _____ proteins _____, and _____ fats _____ are all classified as MACRO nutrients.

7. _____ **minerals** _____, and _____ **vitamins** _____ are classified as MICRO nutrients.

8. Unsaturated and Saturated are types of _____ **fats/lipids** _____.

9. Food energy is measured in units called _____ **calories** _____.

10. _____ **Macronutrients** _____ are required in large quantities by the body and their main function is the release of energy

11. Carbohydrates give off about ____ **4** ____ calories per gram consumed.

12. Proteins give off about ____ **4** ____ calories per gram consumed.

13. Fats/Lipids give off about ____ **9** ____ calories per gram consumed.

14. _____ **Glucose** _____ is a single unit that provides energy for your cells in a single unit

15. _____ **Unsaturated** _____ are considered to be “good” fats; where as, _____ **Saturated** _____ are considered to be “bad” fats.

16. _____ **sodium** _____, _____ **iron** _____, _____ **calcium** _____ are the main minerals needed to carry our processes in your body.

17. Proteins portion size is about the size of a _____ **deck of cards** _____.